

AMENDMENT TO THE CLAIMS

Claims 1 – 10 (Cancelled).

Please add the following new claims:

11. (New) A method for the production of a supported olefin polymerization catalyst comprising:

a) providing an electrolytic solution containing a chiral agent having a chiral center and a metal absorbent material;

b) forming a solid support having chiral or "prochiral" crystal faces comprising said metal absorbent material and said chiral agent by electrolysis of said solution to deposit said metal material and absorb said chiral agent onto the surface of said metal material to provide said support toward having chiral or "prochiral" crystal faces;

c) immobilizing a catalyst or precatalyst on the chiral or prochiral crystal faces of said support to form a supported olefin polymerization catalyst.

12. (New) The method of claim 11 wherein said support has chiral crystal faces.

13. (New) The method of claim 11 wherein the molar ratio of the chiral agent to metal ions of the absorbed material in the electrolytic solution is within the range of 2:1 to 5:1.

14. (New) The method of claim 11 further comprising producing said solid support by the electrolysis of said electrolytic solution in the presence of an electrode on which said metal absorbent material is deposited with the absorption of the chiral agent onto the surfaces of said metal absorbent material.

15. (New) The method of claim 14 wherein said electrode has a porous surface exposed to said electrolytic solution.
16. (New) The method of claim 15 wherein said porous electrode surface comprises graphite.
17. (New) The method of claim 11 wherein said chiral agent is an organic compound.
18. (New) The method of claim 17 wherein said organic compound has a chiral carbon atom.
19. (New) The method of claim 11 wherein said catalyst is a single site catalyst.
20. (New) The method of claim 19 wherein said catalyst is a metallocene incorporating a ligand structure having a cyclopentadienyl group
21. (New) The method of claim 18 wherein the catalyst is a Ziegler-Natta catalyst.
22. (New) A method for the polymerization of an olefin monomer comprising:
- (a) providing a catalyst system comprising a supported olefin polymerization catalyst produced by the immobilization of a catalyst or precatalyst on the modified crystal faces of a support material formed by electrolysis of an electrolytic solution containing a metal absorbent material and a chiral agent component part having a chiral center to deposit said material and to absorb said chiral agent onto the surface of said metal material to provide having chiral or prochiral crystal faces;
 - (b) contacting said supported catalyst system with at least one olefin in a reaction zone under polymerization conditions to form a polyolefin incorporating said olefin monomer;
 - (c) recovering said polyolefin from said polymerization zone.
23. (New) The method of claim 22 wherein said olefin monomer is propylene.

24. (New) The method of claim 22 wherein said catalyst system comprises a stereospecific metallocene catalyst and said polyolefin is a stereoregular polypropylene.